

# Lawn Renovation and Establishment



Prior to renovating a lawn it is very important to determine why a lawn has declined. Perhaps modifying and improving lawn care practices will bring a lawn back to good health eliminating the need for renovation. However, if a lawn remains sparse with more than 50% weeds, renovation may be needed. Addressing the underlying problems that have caused a lawn's deterioration is essential for renovation success.

## Possible Problems

- Excessive thatch
- Compacted soil
- Poor drainage
- Increased shade from trees
- Inappropriate grass species for site conditions

## Planning

In Vermont, the optimum time to plant grass seed is Labor Day and no later than the first week in September. The cooler temperatures and more moisture at this time of year are ideal for germination and seedling growth. Fewer warm season weeds are germinating reducing competition. This timing also allows for the necessary 6 to 8 weeks for grass to become well-established.

## **Rough Grading**

Now is the time to remedy drainage and slope problems. If extensive grading is required, the existing topsoil should be temporarily removed and stored. Then the subsoil can be graded to a gentle slope removing low areas for proper drainage and maintenance ease. A slope of one to two percent away from buildings (a one to two foot drop per 100 running feet) assures good drainage. If a steep slope cannot be avoided, consider terracing the slope or using low maintenance ground covers. At the time of rough grading, compacted soil should be fractured to promote water drainage through the soil.

## **Topsoil, Amendments and Fertilizer**

The foundation for a healthy lawn is healthy soil. It is essential to properly prepare and augment the existing soil before seeding or laying sod. Once the sub grading is done, apply at least 4 inches of topsoil. There should be a gradual transition between the topsoil and subsoil to promote good drainage. To do this, till a few inches of topsoil into the subsoil and then apply the remaining topsoil. Into the top few inches of soil, mix in the amount of lime and a starter fertilizer recommended on the soil test. The phosphorous in started fertilizer is important for establishing a healthy lawn. The amount of P should not exceed 1 pound/1000 square feet of lawn. If the soil test is high to optimum for P, 0.5 pounds of P/1000square feet is adequate. At this time, the suggested amount of organic matter such as compost can be incorporated into the top 2 to 4 inches.

## **Final Grading**

Rake the area level removing any debris and correct irregularities. The area can be lightly rolled with a water roller to firm the soil and show any low spots. This also prevents indentations in the soil when seeding.

**SEED MIXTURES:** When purchasing a grass seed, check the label for the germination test date, which should be within the last nine months. A germination rate of at least 80% or better is preferable. The label will indicate the percentages of the grass species in the mix. There should never be more than 15% to 20% of perennial rye grass seed in a mix because of its quick germination. If there is more than this amount, perennial rye grass will overtake the area hindering the germination and growth of other species. Avoid a mixture that contains Annual or Italian ryegrass. These are sometimes added because they germinate very quickly and the seeds are cheaper than perennial turf varieties. However, they can be aggressive as seedlings and usually die out in the winter. A seeding rate will be given recommending the number of pounds of seed that should be spread over 1000 square feet. For example: Seed at 3 to 4 pounds per 1000 square feet. Select a mixture that is best suited for the site and use.

- What is the desired lawn quality?
- Is the area in sun, shade or both?
- Is this a high traffic or play area?
- Is the site subject to drought?
- Is there a slope?
- How much time is allotted for maintenance?

#### EXAMPLES OF TYPICAL SEED MIXTURES:

##### Shade

100% fine fescue blend

##### Sunny Site with Medium to High Maintenance

65% Kentucky bluegrass blend

20% fine fescues

15% perennial rye grasses

##### Sunny Site with Low Maintenance

20% Kentucky bluegrass blend

65% fine fescues

15% perennial rye grasses

## Grass in Shade

Grasses require at least 4 hour of direct sun and minimum of 6 hours in high traffic areas. With anything less than this, grass becomes weak and more susceptible to disease. If the shade has occurred because of an encroaching tree canopy, consider thinning and pruning trees to allow in more light. In areas with marginally acceptable light, fine fescues are more apt to tolerate the conditions. Because grass grows more slowly in shady areas, less water and fertilizer are required. The grass should not be cut any closer than 3 inches. Alts/F1 1m(y)-7(clev\*hedl)table3(h)- minimum of 6 hours in high W\*nBning and prsT.S26u612o52 792

Newly planted grass seed requires constant moisture to stimulate germination and sustain emerging seedlings. Without it, seedlings quickly die. The goal is to keep the seedbed moist to a 1 to 2 inch depth, but never saturated or to the point of runoff. This may mean several light waterings a day are required especially in dry and windy conditions. Once the seedlings reach about 2 inches, gradually reduce watering frequency to encourage deeper roots. The soil surface can be allowed to dry before watering when there is 60% coverage.

## Post-emergence Fertilizing

When the seedlings have been up for 2 to 3 weeks, fertilize with 1 pound of nitrogen per 1000 square feet. This is to promote shoot density and disease resistance. The grass plants will also use this fall fertilizer application to store energy to survive winter and for healthy spring growth.

## Mowing

The first mowing is done when 60% of the grass reaches the preferred mowing height of 2 1/2 to 3 1/2 inches. This will encourage lateral growth increasing lawn density, which discourages weed invasion. Mowing should be done following the One-Third Rule. Never remove more than one-third of the grass blade when mowing. The mower blade should be sharp to prevent seedlings being pulled out by a dull blade.

## Sodding

Sod can be laid almost any time as long as the ground is not frozen, the site is properly prepared and there is an adequate water supply. It will provide instant turf cover, which is desirable on slopes to prevent erosion. Most sod is comprised of Kentucky bluegrass blends because its rhizomes form a strongly knit sod. This also limits its use to conditions suitable for Kentucky bluegrass. When laying sod, it is important to keep it moist especially on hot days. Prior to putting it down, moisten the prepared site. Lay the sod staggering the ends in a brick-like fashion. To prevent drying, butt the edges closely together, but do not overlap them. On a slope, the sod should be laid perpendicular to the slope and pinned down. Water the sod immediately after installing. It takes about 2 to 3 weeks to root requiring daily watering to encourage good root growth.

## Seed vs. Sod

## Lawn Care

After a lawn has been renovated and grass has been established, follow good lawn management practices for a healthy and vigorous lawn.

*This information was derived from: the Extension Services of Cornell University, University of Maryland, University of Minnesota, University of Missouri, Penn State and Rutgers University. Reviewed and edited in April 2005*

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**Warning! All pesticides are poisons. Use them only as a last resort!**

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**Before using any insecticide, herbicide, or fungicide:** 1) Know your problem. Positively identify the insect or disease. 2) Monitor the problem. Is treatment necessary? 3) Use non-chemical cultural controls first. 4) If you must use a chemical control, *carefully follow all directions and safety precautions on the label!*

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